

# SEQUENCE LISTING

<110> MERKULOV, Gennady et al.

<120> ISOLATED HUMAN TRANSPORTER PROTEINS,  
NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,  
AND USES THEREOF

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<213> *Oryctolagus cuniculus*

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 Lys Ser Leu Gly Ile Pro Leu Gly Gln Asp Ala Glu Glu Lys Ile Phe  
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Thr Thr Gly Asp Val Asn Lys Asp Gly Lys Leu Asp Phe Glu Glu Phe  
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 Gln Ser Leu Gln Thr Leu Gly Leu Thr Ile Ser Glu Gln Gln Ala Glu  
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 Ser Leu Thr Ile Pro Asp Glu Phe Thr Glu Glu Glu Arg Lys Ser Gly  
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 Arg Thr Ser Thr Ala Pro Leu Asp Arg Leu Lys Val Met Met Gln Val  
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 Tyr Lys Lys Leu Leu Thr Glu Glu Gly Gln Lys Ile Gly Thr Phe Glu  
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 Tyr Pro Met Glu Val Met Lys Thr Arg Leu Ala Val Gly Lys Thr Gly  
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 Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu Leu Leu Lys Ser  
 355 360 365  
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 385 390 395 400  
 Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln Ala Gln Ala Met  
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 Ile Ser Lys Glu Gly Leu Pro Gly Leu Tyr Arg Gly Ile Thr Pro Asn  
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<213> Homo sapiens

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 Lys Leu Ala Phe Lys Ser Leu Asp Lys Asn Asn Asp Gly Lys Ile Glu  
 65 70 75 80  
 Ala Ser Glu Ile Val Gln Ser Leu Gln Thr Leu Gly Leu Thr Ile Ser  
 85 90 95  
 Glu Gln Gln Ala Glu Leu Ile Leu Gln Ser Ile Asp Val Asp Gly Thr  
 100 105 110  
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 Val Thr Asp Ile Glu Glu Ile Ile Arg Phe Trp Lys His Ser Thr Gly  
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 Glu Lys Lys Ser Gly Gln Trp Trp Arg Gln Leu Leu Ala Gly Gly Ile  
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 Ala Gly Ala Val Ser Arg Thr Ser Thr Ala Pro Leu Asp Arg Leu Lys  
 180 185 190  
 Ile Met Met Gln Val His Gly Ser Lys Ser Asp Lys Met Asn Ile Phe  
 195 200 205  
 Gly Gly Phe Arg Gln Met Val Lys Glu Gly Gly Ile Arg Ser Leu Trp  
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 225 230 235 240  
 Lys Phe Trp Ala Tyr Glu Gln Tyr Lys Lys Leu Leu Thr Glu Glu Gly  
 245 250 255  
 Gln Lys Ile Gly Thr Phe Glu Arg Phe Ile Ser Gly Ser Met Ala Gly  
 260 265 270  
 Ala Thr Ala Gln Thr Phe Ile Tyr Pro Met Glu Val Met Lys Thr Arg  
 275 280 285  
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<213> Homo sapiens

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<212> DNA

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<210> 43

<211> 601

<212> DNA

<213> Homo sapiens

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<211> 601

<212> DNA

<213> Homo sapiens

<400> 44

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<210> 46  
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<212> DNA  
<213> Homo sapiens

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tcagacatgt tatggtttct ggcacaatat taagaagaca tgatatgaaa tcacaggggtg 480  
aatttttaggg catcacaaca gaaagattat ggtataagaa aaacaatgga attccaacta 540  
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t 601

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<212> DNA  
<213> Homo sapiens

<400> 48  
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ctggcacaat attaagaaga catgatatga aatcacaggg tgaattttag ggcacacaa 420



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cagaaagatt atggtataag aaaaacaatg gaattccaac tacatttctg tcaaatgttc 480
taaaatatat aaaatctgta tcttttgtgt tctctcctga tttatattct aaatttgatg 540
ttatccttct ctgcagaaat aaagtgtctg aaagaatgaa aaaaatggaa gaattcttta 600
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<210> 49

<211> 601

<212> DNA

<213> Homo sapiens

<400> 49

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<210> 50

<211> 601

<212> DNA

<213> Homo sapiens

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acagtgccag acattgttta atgaactggg gatatagttg tgaacaacac tgacagcggt 540
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<210> 51

<211> 601

<212> DNA

<213> Homo sapiens

<400> 51

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acaaaaggat ttgttgagaa agtttgaagc ctaactctga aacgtggatc atagtgttta 240
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<210> 52

<211> 601

<212> DNA

<213> Homo sapiens

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<400> 52
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a 601

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<210> 53
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<212> DNA
<213> Homo sapiens

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a 601

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<210> 54
<211> 601
<212> DNA
<213> Homo sapiens

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gccactgtc agcagctctg ggggaaaatg ttactgaga agcgtacagt agtttttttg 540
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t 601

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<210> 55
<211> 601
<212> DNA
<213> Homo sapiens

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ggcaggccgc caccgccagt cacttatgct gcaatagccc atgtcccaac attcccaacc 420

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tactttctctc caaaagagaa gctatacttt cagatggccc tgtgctgggt tctccctgga 480  
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 ggcttctgat cagacgtgag tgaggcagga actccgcggg ctcccagcgc agcccagagt 600  
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<210> 56

<211> 601

<212> DNA

<213> Homo sapiens

<400> 56

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<210> 57

<211> 601

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

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<213> Homo sapiens

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<213> Homo sapiens

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<210> 64

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gctaattcag tgtttgcaat gaatatagaa ctttatggaa gatgattgct gtgaataatg 540  
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g 601

<210> 67  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 67  
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aatcagaggc tcacaggaac ctaaccctgt ttttcctgta ggaacaatgg tttggtattt 420  
gctaattcag tgtttgcaat gaatatagaa ctttatggaa gatgattgct gtgaataatg 480  
agaattaacc atatctcttt aagagtgcatt ttctaaagga gaatattcag aagggtattt 540  
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t 601

<210> 68  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 68  
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gcttcaagca attttcctct tttagcctcc caagtagctg ggattatggg cacctgccac 540  
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g 601

<210> 69  
<211> 601  
<212> DNA  
<213> Homo sapiens

<220>  
<221> variation  
<222> (301)...(301)  
<223> T may be either present or absent

<400> 69  
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 aatattattt atctataagg ctgttacaat tactgaattt taaaaaatgt gtatttattt 600  
 t 601

<210> 70  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 70  
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 acattacttg gtaaggccac ttgtgaagtc agtctctttg gaggaatatt atttatctat 180  
 aaggctgtta caattactga attttaaaaa atgtgtattt attttttaat gtatttgta 240  
 catttttagt attgatgttg ggataggcat ttaagcaagt ctataactca cctacatgca 300  
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 acaagcagag ttgattcttc aaaggtaagc tcttcattgt ggtcaacaat tgactttcac 540  
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 c 601

<210> 71  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 71  
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 ttactgaatt ttaaaaaatg tgtatttatt ttttaattga tttgttacct ttttagtatt 180  
 gatgttggga taggcattta agcaagtcta taactcacct acatgcataa ttttgcctta 240  
 atcagtttfaa agctttctct taaatgagag atttgaaatt cataatttct gtggttctta 300  
 ycagttctga gttttatttt ttgccctttt tattttttta aaggaaaaat tgaggcttca 360  
 gaaattgtcc agtctctcca gacactgggt ctgactattt ctgaacaaca agcagagttg 420  
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 atccaagatc tttttgtcct ttttcctccc attcattttg tatgtgtaca tttatctaaa 600  
 g 601

<210> 72  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 72  
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 tcttatcagt tctgagtttt attttttgcc ctttttattt ttttaaagga aaaattgagg 180  
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 yctgcattag aactctgtgt ttgtaagtgt ggctttaaaa cacctcccta gtcttcatta 360  
 tgtatatcca agatcttttt gtcttttttc ctccatttca ttttgatgt gtacatttat 420  
 ctaaagtgtg agaatgggaa gtgtaagctc agactggact ctttctttca aggcctcaaa 480  
 ggatagtggg atggcaggaa gtaaggtttt aactccatag atgaggagct gaagagtttt 540  
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 a 601

<210> 73  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 73  
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 gaaaacagaa atgcaaattt gaaccttatt gtctggggca atcagtttga ctatttaagt 180  
 cagactttta tactcttaat gttttgtttc atgggataga gcagtaatct ctgcagccca 240  
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 a 601

<210> 74  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> variation  
 <222> (301)...(301)  
 <223> 'A' may be either present or absent

<400> 74  
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 aatgcaaatt tgaaccttat tgtctggggc aatcagtttg actatttaag tcagactttt 180  
 atactcttaa tgttttgttt catgggatag agcagtaatc tctgcagccc aggtgctctc 240  
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 aaaaggacaa ttatattgta ttaattattgt tgtgaatatt ttcagtcctc acattgtcta 360  
 aaaatctttc taaatggctt tgttattgaa tttatctcat tttatatctg tgccaacagc 420  
 attttcatcc tttctcttca taatttcttt tacaaacagc tgctcaagag gaaggctcaa 480  
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 g 601

<210> 75  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 75  
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 tctcaaatat tctgttgcta taaacacagg gcaggaactg attttttatg ataacgtaaa 180  
 acagaaaagg acaattatat tgtattaata ttgttggtgaa tattttcagt cctcacattg 240  
 tctaaaaatc tttctaaatg gctttgttat tgaatttatc tcattttata tctgtgccaa 300  
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 tcaaagtctc aaggctgagc acgtaatgac ttttggtagt actagatgag aagggctttc 420  
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 tagagcatat aatattctgc ttctaaaagta atattcttct aggaaagtga gggcggtttc 540  
 ctggctgtta ggccagaaat catattccta tattttcttt gatagcttta ggaataatgc 600  
 a 601

<210> 76  
 <211> 601  
 <212> DNA



<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> T may be either present or absent

<400> 76

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ttgctataaa cacagggcag gaactgattt tttatgataa cgtaaaacag aaaaggacaa 180
ttatattgta ttaatatgtt tgtgaatatt ttcagtcctc acattgtcta aaaatctttc 240
taaatggcct tgttattgaa tttatctcat tttatatctg tgccaacagc attttcatcc 300
tttctcttca taatttcttt taaaaacagc tgctcaagag gaaggctcaa agtctcaagg 360
ctgagcacgt aatgactttt gttagtacta gatgagaagg gctttcctga ggaaatgaaa 420
acctaaaaca tgaaaagaag ataaacagaa tttggacagt gagatataga gcatataata 480
ttctgcttct aaagtaatat tcttctagga aagtgagggc gtttccctgg ctggtaggcc 540
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a 601
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<210> 77

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> C, T, or neither (single base deletion) may be present.

<400> 77

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cctaaaacat gaaaagaaga taaacagaat ttggacagt agatatagag catataatat 480
tctgcttcta aagtaatat cttctaggaa agtgagggcg tttccctggc tggtaggcca 540
gaaatcatat tcctatattt tctttgatag ctttaggaat aatgcaaatt ctaagcccaa 600
g 601
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<210> 78

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> C may be either present or absent

<400> 78

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taaaacatga aaagaagata aacagaattt ggacagttag atatagagca tataatatcc 480
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tgcttctaaa gtaatattct tctaggaaa tgagggcggt tccctggctg ttaggccaga 540  
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t 601

<210> 79

<211> 601

<212> DNA

<213> Homo sapiens

<400> 79

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a 601

<210> 80

<211> 601

<212> DNA

<213> Homo sapiens

<400> 80

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kttccctggc tgtaggcca gaaatcatat tcttatattt tctttgatag ctttaggaat 360  
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a 601

<210> 81

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> A, G, or neither (single base deletion) may be present

<400> 81

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agatgctatc tccagatata atcacacggt ggggttaggg ctcaacattt ggatttgagg 480  
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g 601

<210> 82  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 82-  
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 t 601

<210> 83  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> variation  
 <222> (301)...(301)  
 <223> T may be either present or absent

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 t 601

<210> 84  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 84  
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 caggatcata tggtagttct atatttaatt tttaaaggaa ctccatactg cttccataa 540  
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 t 601

<210> 85  
 <211> 601  
 <212> DNA

<213> Homo sapiens

<400> 85

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g 601
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<210> 86

<211> 601

<212> DNA

<213> Homo sapiens

<400> 86

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ycacgcccag ctaatttttg tatttttagt aaagacgggg ttccaccatg ttggccagga 360
tggtcttgat ctcttgacct catgatccac ccgccttggc ctcccaaagt gctgggatta 420
cagggtgtgag ccaccacccc tggccaatgt ttgggtattt tctttagggt ctctgatgtt 480
gggttcatat atatttataa aaaacaatag ctacataact tattaaggga tatgcaatat 540
aaaatatata aattgtgaca ctgaaaattt aaaatgggag gagtggagta aaagtacctt 600
c 601
```

<210> 87

<211> 601

<212> DNA

<213> Homo sapiens

<400> 87

```
agtgcgtgga ttacagggtg gagccaccac ccctggccaa tgtttggtat ttatcttttag 60
gtgctctgat gttgggttca tatatattta taaaaaaca tagctacata acttattaag 120
ggatatgcaa tataaaatat ataaattgtg aactgaaaa tttaaaatgg gaggagtgga 180
gtaaaagta cttcatataa cttactatta tatcctctta ttgaattgac ccttttatca 240
ttatatagga actttgtttc tcctttacaa cttctgactt aaagtttgtt ttatatgata 300
yaagtaaagt tactcctgct ctcccttggg ttctgtttcc atggaatatt tttttccatt 360
ccttcaccat cagtctgtgt gtatttttac agatgaaatg agtctgtcat gggcagcata 420
tagttggatc tagttttttt aatccactca gacactgtgt tttttgattg gataatttaa 480
tccattcatg ttcaaggtaa ttattgataa gtaaggactt tgtactacca ttttgcttat 540
tgtttcatgg ttctttttata gatcctttat tcttttcttc ctctcttgct gtcttttttt 600
t 601
```

<210> 88

<211> 601

<212> DNA

<213> Homo sapiens

<400> 88

```
ggtttttggg ttgtgggtac caagagggtt caaaaaacat cttagagatt ataagattt 60
attttaactt gataacttaa tttttattgc aaaaaccccc caaaacaaaa aaatctacac 120
ttttacttaa tccctgaaa ttttgaattt ttgatgtcac agtttacctc ttttcatatt 180
gtgtatccct taaattattg tagctattat tacttttaat agttttctct ttcctactac 240
agatgtaagt gatttgcata ccatcattac agtattattt tgaatttacc tgtgtacttt 300
yttttatcag ccagttttat acttttcagat gtttttgtgt tactcattag catctttttc 360
```

```

tttcagcttg aggagctcct tttacgtttc ttataaaata ggtgCGgtca tgattatctc 420
cctcagctat tgtttgcctg ggaaagtatc tctccttcat ttctgaagga cactttgctg 480
ggtacattac ccttggttgg tatttttttc cttgaacgct ttaaataat catccctttc 540
tctcctgacc tgtaggtct ctgctgacca gctcgtttcc aaccatattg ggactgtctt 600
a
601

```

```

<210> 89-
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 89
atTTtaacca tccattgttt ctgcttctct agataaccct gactaatata taattggtat 60
gaagtgatat ctcatggctt tgatttatat ttctttcatg gctagtgact tttttgtac 120
ttttgggata ttgttattat tattattatt attactagtg ttataacttc ttcagtaaaa 180
gtgttagaaa caatttttaa aggcagaatg tgaccagagt ttctgtagt tatataacca 240
tcatggacct tccctcaagt gctaagccat tagtgttact catgtcactc caaatgtcag 300
sttgttttct tccatttcac tgtctcttgg tgtcccaaac ttgaattcat gggaaaaaca 360
tctgaatggt gcttaatatg gtttggaatg ttgtccctc caaatctcat gttgaaatat 420
gacctccagt gttggaagta gggactactt gggtcacgag agtggatcct tcattaatgg 480
cttggttaata agtgaactct attagtctcat gaaagctggt tggtgataag agcctggcat 540
ctcattttctc ttgtccttct ctcaccatct gacacacttg ctcacctttt ttcttcagcc 600
a
601

```

```

<210> 90
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 90
ttccagagtG tagaagtaca ctgtcctatc ctttctagga gatcattata acaccaaaag 60
cagacagtat atgaaacagg gaaattagag gccaaagatc ctatgactta tatgtaaaaa 120
tttaaagaaa atattagcaa actgaatcag ccatttttaa aaatatacca caatcaatgc 180
attcataaga gcagcttaac aaaatttggt agaaggcatt aaagaagact cagtatagaa 240
aagatgtacc ttctctccaa attgggtgata gagattcaat gccattaaaa aaaccacct 300
kgtttttttg aggaacttgt caagctgagt ctcaaattta tatcaaagag caaaggccta 360
agaatatcca ggacattcct gaagaactgt aaggagccag gggcctgccc tatcagatac 420
caaggggtgt tattaagcca taaccaagtG agtgctgttt ctacagaaac agacaagtta 480
acaagtgaag cataatagag agcccagaaa cagaccatc catatttttg atttgtcacg 540
tgaaagaagt agctttgcaa aactttggga aaaggagagt gtgtgcaata gatgatgctc 600
g
601

```

```

<210> 91
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 91
taaagaagac tcagtataga aaagatgtac cttctctcca aattggtgat agagattcaa 60
tgccattaaa aaaaccacc tggttttttt gaggaacttg tcaagctgag tctcaaattt 120
atatcaaaga gcaaaggcct aagaatatcc aggacattcc tgaagaactg taaggagcca 180
ggggcctgcc ctatcagata ccaagggttg ttattaagcc ataaccaagt cagtgtgttt 240
tctacagaaa cagacaagtt aacaagtga acataataga gagcccagaa acagaccat 300
mcatattttg gatattgtac gtgaaagaag tagctttgca aaactttggg aaaaggagag 360
tgtgtgcaat agatgatgct cgtgctcatg cagacaaaaa ggaaattggg atacctgctt 420
cttaccgtac acaaacacca acctaaacgt gaaagttaaa ctataacagc ttgaggtggt 480
ggggaagaaa tatctttatc tcagtgtagg gaagaattta ttttaaaaag aagacacaaa 540
aggccatata taggaatgaa aagattgaat tcagctgcat taaaaagatt aaattcagct 600
g
601

```

```

<210> 92
<211> 601
<212> DNA

```

<213> Homo sapiens

<400> 92

```
tatctttatc tcagtgtagg gaagaattta ttttaaaaag aagacacaaa aggccataca 60
taggaatgaa aagattgaat tcagctgcat taaaaagatt aaattcagct gcgttaaaat 120
caagagcatc tgtacttgga cagcatagag tggaaagaca aagagaaggt atttgccagc 180
ttataacttg aaggattaga atgaatgata taaagaacta tgtaaataag aaaaagacat 240
acaaccgggt agaaaaacgg gcaaagacat gaacagcata tttcacgtga aggaaacagc 300
rgtagcaaat gaacatggta agagatgctc aacacggtta gtaatttgaa gggaaatgca 360
agttataccc acagcaagac tatcttatct aggaagtttg tcaataccct aaatgttctg 420
tggttttaag ctacagagtt tgtaattcat ttattttatt aataaatact cagtggcagg 480
cactgtttta gaaaccttgg ttataacttt gaatgaaatt aaaaaaaatc cttgccttgt 540
ggaggatgct tatgtgtggg gagttgggtg gtgggggtcaa acaacaatta cattaaaata 600
g 601
```

<210> 93

<211> 601

<212> DNA

<213> Homo sapiens

<400> 93

```
acttgaagga ttagaatgaa tgatataaag aactatgtaa ataagaaaaa gacatacaac 60
cggtagaana aacgggcaaa gacatgaaca gcatatttca cgtgaaggaa acagcggtag 120
caaatgaaca tggtaagaga tgctcaacac gtttagtaat ttgaaggaa atgcaagtta 180
taccacagc aagactatct tatctaggaa gtttgtaaat accctaaatg ttctgtggtt 240
ttaagctaca gagtttgtaa ttcattttatt tattcaataa atactcagtg gcaggcactg 300
ktttagaaac cttgggttata actttgaatg aaattaaaaa aaatccttgc cttgtggagg 360
atgcttatgt gtggggaggt ggggtgggtgg gtcaaacaac aattacatta aaatagaaaa 420
tagtgacata aataaaccta taaatattgc aaccagagtg tatattataa atgtaagtag 480
tgactaggac tctcatgcag atatacctct gtgctgggac aaatgaaagt ttaagtgtaa 540
tttcccatat gcaagtcaaa ataaaaagtg acactagaaa acacaataat gaatatctga 600
a 601
```

<210> 94

<211> 601

<212> DNA

<213> Homo sapiens

<400> 94

```
ggcatttaag tattctgccg tagggaagtg taaaagttgt aggcttttac tttttatagg 60
tactatattg tccaaataat ctccagcacct catggttgct aaggatctgt gtccttggtt 120
ggtcagatta tgtttatctc tggcataagg cacttaacaa tattcattaa aggttacaga 180
atctttttgc ttcatctgct tagcatttca taccagtttg ttttccacca aactttcaaa 240
ttttgattgt ttcattaata ttctgcatac tgatgtaaac caagttctat tattgtgcaa 300
wctgctctg aaacccttag gaactctctg aaggagtttt atttattttt tgtttttgtt 360
tttgtttttg ttttgttttt ttgagacgga gtcttgctct gttgcccagg ctagagtgtca 420
gtggtgcat ctcggctctc tgcaaacctc gcctccgggg ttcacgccat tctcctgcct 480
cagccaccgg agtagctggg actacaggca cccaccactg cgcctggcta attttttttg 540
tatttttagt agagacgggg tttcacctgt ttagccagga tggctctgat ctcctgacct 600
t 601
```

<210> 95

<211> 601

<212> DNA

<213> Homo sapiens

<220>

<221> variation

<222> (301)...(301)

<223> T, C, or neither (single base deletion) may be present

<400> 95

```

ttgagacgga gtcttgcctc gttgcccagg ctagagtgcg gtggtgcat ctcggctctc 60
tgcaaacctcg gcctccgggg ttcacgccat tctcctgcct cagccaccgg agtagctggg 120
actacaggca cccaccactg cgcttggtta attttttttg tttttttagt agagacgggg 180
tttcaccgtg ttagccagga tgggtctcgat ctcttgacct tgtaatccgc ccgcctcgcc 240
tcccaaaagt ctgggattac aggcgtgagc cactgtgccc ggcctttttt tttttttttt 300
ytttatgggc ttgtcttcta cacttcagat ttgactaaat taaatatgca ttaaatgaag 360
tcaggagttc acattgccac tagtaacaat gcctaagctt acataaagca ttataaaatt 420
gttggtgatt agtgccttct cagctatgag tataagataa tattatacta gtagtccagt 480
tgcctagata aattgtacac tatgtgaagt tttattttaca taattcttac ggtatttttt 540
aaggtagttg ataacagttg agactacaat tgtatctcca ttttattgat agtaaaatga 600
a                                                                 601

```

```

<210> 96
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 96
gaattgtaaa aatattatta tagaattggt tctctcaaac tatagtaatg tagaataggt 60
tgaaggggtg atgatttgaa acaatacctc tccattagct aaattttata tagaatctat 120
tgcattgttt aaatgataag tcagatttat aaaaatattt ttataaacag taggaaatga 180
gttttaggggt attcacatac agttttaatt tttattttaca tttttaaaac atatcatggt 240
ataaatatga tgtggatata aatttgagat aaaggaagta ttgtttaaga attgatgaac 300
kaatttctta aaagatgtca tcaccagttg gttttctagc cttatgaaaa atggttgcaa 360
taaaaaagat tgactatgat aaaatgctgc cctttcattt taacctagac caagagaaaa 420
catactgtga atctatgatg aatgaaagaa agttgtaact gttggttttg tatatttgta 480
attactgttt attttcattt cttgtgaact gatactgtac tttgttcatt gtgagtagac 540
aacttataat ctatgtactc aaattgggtt agtataaatt ctagggaatg aagttcatat 600
t                                                                 601

```

```

<210> 97
<211> 452
<212> DNA
<213> Homo sapiens

```

```

<400> 97
tgttatactt atggtcaaca ctttttatat ttgtctgtag atttctgtac aaaaagattc 60
tgacactggt ttaagccagc attccttcag aatgtacca aatctcaaaa tttatttagg 120
ggcaaagcta atgcttttaa gaaaaaggag argggattgg tgtgtgtttt tctttaggaa 180
cagtagtaac ttgactttta gagaacttga ataagcattt attttttcct ttgtcttatt 240
ttattgtgaa gtttatttat taaaataaaa atggatttct ctggaattta gtttctgcaa 300
atttgaggag tttccaaagt caaccttcag gtttgatact tctctagaaa gactcacata 360
actcactgaa agcttattac ccctgggtat ggtttattac ggggaaaaga tgcggatgaa 420
aatcagtcga gtaaagaagc acatagggca ga                                                                 452

```

```

<210> 98
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 98
ttatatcatt ctgcttttat ttttaggttc acggttcaaa atcagacaaa atgaacatat 60
ttggtggcct tcgacagatg gtaaaagaag gaggtatccg ctgcctttgg aggggaaatg 120
gtacaaacgt catcaaaatt gtccttgaga cagctgttaa attctgggca tatgaacagg 180
taattgttat caccctggtg atttattaac aaagaggagt tagtaaacgg attcaataaa 240
tgtaaatgta taatgctttt gggattcttg ttttaataca tgataatctt tcacatatat 300
yccataagga ggatcactta taggagatta gactaaataa aatcagagat ttctcatgac 360
caagttatgg gattcttaat tcatcatatt atttataaag tttttttttt ctaagttagt 420
cttaaaggaa gggtagaatt ttagtttatt cattctgaat cctgagcaga agcagcacac 480
taacataagt tttatgaaag tgtcacaatc taacctctgg aaggaaaact ataagttgaa 540
gtcctttgtg taatttgacg ttgctgtaaa attgagctga gtttgagatg acacctccat 600
g                                                                 601

```

<210> 99  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 99  
 aaattgctcc tgagacagct gttaaattct gggcatatga acaggtaatt gttatcaccc 60  
 gtggaattta ttaacaaaga ggagtttagta aacggattca ataaatgtta atgtataatg 120  
 cttttgggat tcttgtttta atacatgata atctttcaca tataccccat aaggaggatc 180  
 acttatagga gattagacta aataaaatca gagatttctc atgaccaagt tatgggattc 240  
 ttaattcatc atattattta taaagttttt tttttctaag tagttcttaa aggaagggtta 300  
 kaatttttagt ttattcattc tgaatcctga gcagaagcag cacactaaca taagttttat 360  
 gaaagtgtca caatctaacc tctggaagga aaactataag ttgaagtcct ttgtgtaatt 420  
 tgacgttgct gtaaaattga gctgagtttg gagtgacacc tccatgaagg caggggcgtg 480  
 gcttcttccc catgtactcc agcacctaga cagagcttgg catgtgataa gtttcaagcg 540  
 agtgttgaat gagtcaatga atgaacaaat gcatttacct ctgaatcact tctctgtcgg 600  
 c 601

<210> 100  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 100  
 tgggattcct gttttaatac atgataatct ttcacatata ccccataaagg aggatcactt 60  
 ataggagatt agactaaata aaatcagaga tttctcatga ccaagttatg ggattcttaa 120  
 ttcacatata tatttataaa gttttttttt tctaagtagt tcttaaagga agggtagaat 180  
 tttagtttat tcaattctgaa tcctgagcag aagcagcaca ctaacataag ttttatgaaa 240  
 gtgtcacaaat ctaacctctg gaagggaaaac tataagttga agtcctttgt gtaatttgac 300  
 rttgctgtaa aattgagctg agtttgaggat gacacctcca tgaaggcagg ggcgtggcct 360  
 tttcccatg tactccagca cctagacaga gcttggcatg tgataagttt caagcgagtg 420  
 ttgaatgagt caatgaatga acaaatgcat ttacctctga atcacttctc tgcggtctt 480  
 tgtaacttg gattatttga gctattgctt cagcctaact caatgtaaag gggaaatata 540  
 gaggtaagtt ttagagtttg ggttctcttt atgggtcatta gcagaactgt ctagttgagc 600  
 a 601

<210> 101  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 101  
 catatacccc ataaggagga tcacttatag gagattagac taaataaaat cagagatttc 60  
 tcatgaccaa gttatgggat tcttaattca tcatattatt tataaagttt tttttttcta 120  
 agtagttcct aaaggaaggg tagaatttta gtttattcat tctgaatcct gagcagaagc 180  
 agcacactaa cataagtttt atgaaagtgt cacaatctaa cctctggaag gaaaactata 240  
 agttgaagtc ctttggtgtaa tttgacgttg ctgtaaaatt gagctgagtt tggagtgaca 300  
 sctccatgaa ggcaggggag tggcttcttc cccatgtact ccagcaccta gacagagctt 360  
 ggcattgtgat aagtttcaag cgagtgttga atgagtcaat gaatgaacaa atgcatttac 420  
 ctctgaatca cttctctgtc ggcttttgtt aacttggatt atttgagcta ttgcttcagc 480  
 ctaactcaat gtaaagggga aatacagagg taagttttag agtttgggtt ctctttatgg 540  
 tcattagcag aactgtctag ttgagcagcc acagattatg ttttccatta tttattccat 600  
 c 601

<210> 102  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 102  
 ataaggagga tcacttatag gagattagac taaataaaat cagagatttc tcatgaccaa 60  
 gttatgggat tcttaattca tcatattatt tataaagttt tttttttcta agtagttcct 120  
 aaaggaaggg tagaatttta gtttattcat tctgaatcct gagcagaagc agcacactaa 180



cataagtttt	atgaaagtgt	cacaatctaa	cctctggaag	gaaaactata	agttgaagtc	240
ctttgtgtaa	tttgacgttg	ctgtaaaatt	gagctgagtt	tggagtgaca	cctccatgaa	300
sgcagggg	cggtctcttc	cccattgtact	ccagcaccta	gacagagctt	ggcatgtgat	360
aagtttcaag	cgagtgttga	atgagtcaat	gaatgaacaa	atgcattttac	ctctgaatca	420
cttctctgtc	ggctttttgtt	aacttggatt	atttgagcta	ttgcttcagc	ctaactcaat	480
gtaaagggga	aatacagagg	taagtttttag	agtttgggtt	ctcttttatgg	tcattagcag	540
aactgtctag	ttgagcagcc	acagattatg	ttttccatta	tttattccat	cattgtttat	600
C						601

<210> 103  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> variation  
 <222> (301)...(301)  
 <223> C may be either present or absent

<400> 103						
gcacctagac	agagcttggc	atgtgataag	tttcaagcga	gtgttgaatg	agtcaatgaa	60
tgaacaaatg	catttacctc	tgaatcactt	ctctgtcggc	ttttgttaac	ttggattatt	120
tgagctattg	cttcagccta	actcaatgta	aaggggaaat	acagaggtaa	gttttagagt	180
ttgggttctc	tttatggtca	ttagcagaac	tgtctagttg	agcagccaca	gattatgttt	240
tccattattt	attccatcat	tgtttatcaa	ggactgtaag	ggccttgaaa	ttcaactccc	300
ccccccatag	tttttgtatt	attccatgta	gatttttagat	tattctggag	agtgttttgt	360
tcttgagcaa	cagaatactc	ttgagaagat	tacgaagtcc	agtggtatcc	ttttctttgc	420
ctaggaaata	gagaagcaaa	aaaaaaaaaa	aaaaaaaaatt	aaagaaaatc	tagtctccag	480
gatttttaatt	agaacctatc	cttggggaagg	ctatttttctt	tatatgaagg	tttgaagatt	540
caaatacatga	ttattaaggg	ctaattgtttg	agataccctt	aggttattct	gaccacatac	600
t						601

<210> 104  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 104						
catttacctc	tgaatcactt	ctctgtcggc	ttttgttaac	ttggattatt	tgagctattg	60
cttcagccta	actcaatgta	aaggggaaat	acagaggtaa	gttttagagt	ttgggttctc	120
tttatggtca	ttagcagaac	tgtctagttg	agcagccaca	gattatgttt	tccattattt	180
attccatcat	tgtttatcaa	ggactgtaag	ggccttgaaa	ttcaactccc	ccccccatag	240
tttttgtatt	attccatgta	gatttttagat	tattctggag	agtgttttgt	tcttgagcaa	300
sagaatactc	ttgagaagat	tacgaagtcc	agtggtatcc	ttttctttgc	ctaggaaata	360
gagaagcaaa	aaaaaaaaaa	aaaaaaaaatt	aaagaaaatc	tagtctccag	gatttttaatt	420
agaacctatc	cttggggaagg	ctatttttctt	tatatgaagg	tttgaagatt	caaatacatga	480
ttattaaggg	ctaattgtttg	agataccctt	aggttattct	gaccacatac	ttggatttta	540
tgatagggaaa	gccacagcct	aaaataaata	aataactcaat	gcagttattt	cagtatgcaa	600
g						601

<210> 105  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 105						
gattattctg	gagagtgttt	tggtcttgag	caacagaata	ctcttgagaa	gattacgaag	60
tccagtggta	tccttttctt	tgccataggaa	atagagaagc	aaaaaaaaaa	aaaaaaaaaa	120
attaaagaaa	atctagtctc	caggattttta	attagaacct	atccttggga	aggctatttt	180
ccttatatga	agggttgaag	attcaaatca	tgattattaa	gggctaattg	ttgagatacc	240
cttaggttat	tctgaccaca	tacttggatt	ttatgatagg	aaagccacag	cctaaaaata	300
rtaataactc	aatgcagtta	tttcagtatg	caagaagttt	ggtatttttg	aaaaagtcga	360
tggttattgc	aagcaaatat	gcacattttg	ctttatgcca	tttgtcagat	tcttaccttg	420

gataccacca acaggcatcc tctgcttctg tccacccaag ctccttctctg agacctcttt 480  
 atagtattgt gatttctgca cactaacttt cttagacatg aagagaaagc tgtctacaca 540  
 gtgtggtgta gttttcttat gggctctgga cctatggtgc tgttttctct cctcctgctg 600  
 a 601

<210> 106

<211> 601

<212> DNA

<213> Homo sapiens

<400> 106

tgaccacata cttggatttt atgataggaa agccacagcc taaaataaat aaataactcaa 60  
 tgcagttatt tcagtatgca agaagtttgg tatttttgaa aaagtccatg ggtattgcaa 120  
 gcaaatatgc acattttgct ttatgccatt tgcagattc ttaccttggg taccaccaac 180  
 aggcatcctc tgcttctgtc caccacagct ccttcctgag acctctttat agtattgtga 240  
 tttctgcaca ctaactttct tagacatgaa gagaaagctg tctacacagt gtggtgtagt 300  
 kttcttatgg gctctggacc tatggtgctg ttttctctcc tcctgctgaa ggtccattca 360  
 tccctcgggg ctctctaaaa gccaccttcc tgtgacaagc atataactaag catctcaatc 420  
 aaagccagtt cctccctgtt ccagcctccc tcgagtgtg aattgcagaa tatcccat 480  
 ttcattggat gatggaaaac ccattgtttt cccagtggat tgtaaattac ttcggggtaa 540  
 ataggctgta tatattctca aatttcccag agtatgtaac taggtcactt ttagattcag 600  
 a 601

<210> 107

<211> 601

<212> DNA

<213> Homo sapiens

<400> 107

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 ctttatagta ttgtgatttc tgcacactaa ctttcttaga catgaagaga aagctgtcta 180  
 cacagtgtgg tgtagttttt ttatgggctc tggacctatg gtgctgtttt ctctcctcct 240  
 gctgaaggct cattcatccc tcggggctct ctaaaagcca ccttcctgtg acaagcatat 300  
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 gcagaatc ccatTTTTtca ttggatgatg gaaaacccat tgttttccca gtggattgta 420  
 aattacttctc gggtaaatag gctgtatata ttctcaaatt tcccagagta tgtaactagg 480  
 tcacttttag attcagatag attttgttcc ttgaatagct agtactttag gaaactaaga 540  
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 c 601

<210> 108

<211> 462

<212> DNA

<213> Homo sapiens

<400> 108

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 attggatgat ggaaaaccac ttgttttccc agtggattgt aaattacttc ggggtaaata 180  
 ggctgtatat attctcaaat ttcccagagt atgtaactag gtcactttta gattcagata 240  
 gattttgttc cttgaatagc tagtacttta ggaaactaag aaaaagatct tttcaacctg 300  
 rtatgtagct ctgtcaaaca catcatcagt atggggtaaa cctgtgttct ctgtgggttg 360  
 tcattaccat agtagtgta ttgtatcatt gacagtgtaa tagtggtggg tagtgttctt 420  
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<210> 109

<211> 414

<212> DNA

<213> Homo sapiens

<400> 109

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ggggtagtgt tcttgtggtt tcagctgcc aactgttctc actccaacat 180
cttctctctt atctcaacac tgtaggctca cctgtgtact gtgtgtttca gcatctctgc 240
ttgcatgacc caggagtgcc tccactcaa tatggccacc atgcatggtc atcttctctg 300
tactccctgt ctctgaccc tgcctcagca acacagacag acacccttcc tctttctata 360
tgtcatatgg tggggaatgc ccttttagtac ttactcagga gttagtctct ctgg 414

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<210> 110  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

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<400> 110
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tggtttcagc tgccactctg tactgactgc tttccactcc aacatcttcc tctttatctc 120
aacactgtag gtctacctgt gtactgtgtg tttcagcacc tctgcttgca tgaccagga 180
gtgcttccca ctcaatatgg ccaccatgca tggctatctt tctgtactc cctgtctcct 240
gacctgtctc cagcaacaca gacagacacc cttctctctt ctatatgtca tatgggtggg 300
ratgcccttt agtacttact caggagttag ttctctctgg aagccttctg ttctagtctc 360
cttttgttac agcactttca cattgaattc tgacgttctc tgtacttctc tgctttgtga 420
gactgtgagc ttccttaggc agtagctact tgtattctta gcacctggcc cagtgccagg 480
aaacccttat taagtaaag aaaagacaga actgacagac tgggaattaga gctcaagctt 540
gcctcaatct caagccatta agatgaaggg gagccgggag tgggtggctca cgcctcta 600
c 601

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<210> 111  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

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<400> 111
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taggtctacc tgtgtactgt gtgtttcagc atctctgctt gcatgaccga ggagtgcctc 180
ccactcaata tggccacccat gcatggctat ctttctgcta ctccctgtct cctgacctg 240
ctccagcaac acagacagac acccttctc tttctatatg tcatatgggt gggaatgccc 300
bttagtactt actcaggagt tagttctctt gggaagcctt ctgttctagt ttcctttgt 360
tacagcactt tcacattgaa ttctgacgtt cctgtactt atctgctttg tgagactgtg 420
agcttctctt ggcagtagct acttgtattc ttagcacctt gccagtgcc aggaaccct 480
tattaagtaa atgaaaagac agaactgaca gactggaatt agagctcaag cttgcctcaa 540
tctcaagcca ttaagatgaa ggggagccgg gcgtgggtgg tcacgcctct aatcccagca 600
c 601

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<210> 112  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

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<400> 112
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agagggttga gtgagctggg atcacacccat tgcaatctag cctgggtgat agaagtagac 180
cttgtctcaa aaaaaaata aataaataaa taaaggggaa gataaggatt ggaaacagaa 240
ggagcagcat gtggacagaa atgtaggcac aagaaggcat cactcactga agagactgaa 300
rgtggttcac tgtgcctcaa gactgggtga gtgtgttcc ggaaagataa tgatgaaaga 360
gctggacaga taaacagggg ccaaatgtaa taggagtctg gattttattc tgaatatggt 420
aggggctatt gtgcatctt atatagggaa gtgaaatgag tacattcaca ttaaggaa 480
atcaacctga aaaaagagt gagacattgt tgggggagag tgaggtagac tagaggcagg 540
gagaatattt aaataattga ggtaagaaat gatgaacacc agtataaggt gatgtcttta 600
a 601

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<210> 113  
 <211> 601

<212> DNA  
<213> Homo sapiens

<400> 113  
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aagggtgatgt ctttaaggaa tggagaaggg aatgaactga gaaatatttt ggaagtagaa 120  
tcaacagaac tcaactgactg actggatag gaggtgagaa agagaagagt caagaatgat 180  
attctaattt ctaacttgag tgactgcatt caaagagaat acaatatcag gttccatttt 240  
gtgcatgctg agtttgagat gtgtgggaca tgtacaggga gctgtccagt aagcaattgg 300  
rtatatcagc tagccattaa gagagagatc tttgatagag aggttggtgc tgagttgagc 360  
cattggaatg ggcaggatca ctcaagaaga gcttataaat gagaagaatt ctaggataaa 420  
gtccaaaggg agaagtaaaa gaagaaactt gcaaaggaca ctgagaagaa atagctcgag 480  
ggatgggaga aaatccagag agagggatgg cataggagtc agtggaagga aacggtttca 540  
tgggggtcag tactactggg tagtgaatat aataagaata tcttttagga tttctcaacc 600  
c 601

<210> 114  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 114  
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ggcaagttac ttaaagctct tgtgactatt acctcatctc taagatgggg actaagcttg 120  
gtgacatagt tttacatacc aggcacagtg cctgactttt tggtctgtgc ctgaagtctt 180  
ccctttgtat atggtatgtt tcggggaata ggagcctcaa gcacttatcc tttaaatatt 240  
tatcctccat cagtcactaa acgtttactc tgtacttttg ataggtgctg tgggggtcca 300  
rggtataaaa ggtaccttca aagttactgt taaagtgcag gaaggttttt aagcaaat 360  
tgtttaataa ttttgacaat ctgacatgca ggaaaattaa tagggcctat gcagaagagg 420  
agttttatgt aacactctgt agttcaggaa acagagccct tggaagcagt gatctctctg 480  
gggaggaatg tctggtattt gggaaatctc tgaaatgata atatacttaa tttttatcat 540  
gagcagcaaa acacagattt gctaggagaa agtcatcgta tggtgttgca ttgggcactt 600  
t 601

<210> 115  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 115  
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caatgtacac caagattcca atttctccat gtccctccca acaccattaa gtgggggtgt 120  
ggctctactac tattgtctgt ttgtctgtta tctctccctt cagttctgta agtggttgct 180  
tcatatattt aggagcttaa tattaggtcc atatgaagt ataatttctt cctggtaaag 240  
tgaccattt atcattatgt aatgtccatc tttgtctctt gtgacagttt gtgtcttaaa 300  
rtctattttg tctgatgtaa ttatggccac cctttttctc tttgggttcc cgtttttatg 360  
gaatatcttt tccatcctt tcaacttcag cttatgtgtg tcttagatc taaagtgagt 420  
ctcatagata aggtatagtt gattctgtat gtgttattca ctcagcaatt tatatctttt 480  
agttagggga tttaatccat ttacatttaa agcagttact gatagggaag gacttactgt 540  
tgtcatttgg ctagctacct ttttatcttt gtctgtggc tttctgtttt tcccttctt 600  
c 601

<210> 116  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 116  
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tctattttgt ctgatgtaat tatggccacc ccttttctct ttgggttccc gtttttatgg 180  
aatatctttt tccatccttt cactttcagc ttatgtgtgt ccttagatct aaagtgagtc 240  
tcatagataa ggtatagtgt attctgtatg tgttattcac tcagcaattt atatctttta 300

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rttaggggat ttaatccatt tacatttaaa gcagttactg ataggggaagg acttactgtt 360
gtcatttggc tagctacctt tttatctttg tctgtggct tttctgtttt tcccttctc 420
tcttcttggc ttcttctgtg ttttgttgat tttttttttt tttgtagtga tatgttctga 480
ttcccttctc atttcccttt gtgtgcattc tatagatgct attttgttg ttaccattgc 540
aactacataa agcatactaa agttatagca acttatttta agctgtttac aacttaactt 600
c 601

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<210> 117
<211> 601
<212> DNA
<213> Homo sapiens

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<400> 117
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acctaaaagt ctgatcattt tacatctgtt cagacatctt tgcagccttt cgggtgcagt 180
tccaaagtgt ttagtgggaa tttcaaagcc ttttaataatc tagccccact ttgttctactc 240
tctgtgtaat aaccacatac aacaattggc tgcattctcca tagcacatgg tactcctccc 300
rttgtcttgg ttgtgccagc aaactctggt ttcgctttct cttcctgctt gttgaggtca 360
tttccaaggc ccaggctctt gtgcttttcc ccaagcttcc cagagcttct tccatactcc 420
ccttacttcc tgagatttaa ctgttctctc ttcagcgtt gtctagttag aaggaggcag 480
cagcagcact gtgggggtgt ggaaagtgt ccagctttgg agtcagacca ttggatctca 540
gccctaccat tttctactta gattttttta ggacaaattt ctccatcttt ctaagcctcc 600
a 601

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<210> 118
<211> 601
<212> DNA
<213> Homo sapiens

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<400> 118
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catagcacat ggtactctc ccgttgtctt ggttgtgcca gcaacactgg ttttcgcttt 120
ctcttctctg ttgttgaggt catttccaag gccaggtct ttgtgctttt tccaagctt 180
cccagagctt cttccatact ccccttactt cctgagattt aactgttctc tcttcagcgc 240
ttgtctagta agaaggaggc agcagcagca ctgtgggggtg gtggaaagtg taccagcttt 300
rgagtcagac cattggatct cagccctacc attttctact tagatttttt taggacaaat 360
ttctccatct ttctaagcct ccaattgctc acttacaaaa ttgatataac atttaccttg 420
caagattggt atggaaggta attaacccag tatttagaac atagtaatta ataaataact 480
attattacca tcattactat agttaggaca ctactgtta ggtgctatac aaagaggatc 540
ataaaaggga tgttgtcttg ggcttcttgg aataaatgtt gtccttttac tgtattttag 600
a 601

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<210> 119
<211> 601
<212> DNA
<213> Homo sapiens

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<400> 119
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ctaagcctcc aattgtctac ttacaaaatt gatataacat ttaccttgca agattggtat 120
ggaaggtaat taaccagta tttagaacat agtaattaat aaataactat tattaccatc 180
attactatag ttaggacact cactgttagg tgctatacaa agaggatcat aaaagggatg 240
ttgtcttggg cttcttggaa taaatgttgt ccttttactg tatttttagaa tatcattctg 300
rgtcataatt gtttgttgtc ataataatga aacatacttg aatattaaat taccctcttt 360
ttttattttt tagccatgtt agaaggttcc ccacagctga atatggttgg cctctttcga 420
cgaattatct ccaagaagg aataccagga ctttacagag gcatcaccac aaacttcatg 480
aagggtctcc ctgctgtagg catcagttat gtggtttatg aaaatatgaa gcaaacttta 540
ggagtaaccc agaaatgatg ttgcattttt tgcttttagcc tgataattga aactttcaac 600
a 601

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<210> 120
<211> 601

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<212> DNA  
<213> Homo sapiens

<400> 120  
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attgaaactt tcaacaatct ctggagtgc tttttctcct cgaattgaaa caagtctatg 120  
gcaaaagaag ctgcattttt ttcacaaaag ggaagatggt aacaatggtc acttcaaact 180  
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aaggccacac aattatactt tatcttttct taataatcct gcaaatctct gccctgaatc 300  
ygaaatctga aaatgtactg gcttgaacaa aatttggttt gtgtgttaga gttataaatc 360  
attaatcttt atttcgggtg gtttacgttt atgccagttc ctttatattt aaatttcttg 420  
ttttatataat tttgaatgct tttatagatt tctttaaatt tctttataga accattaata 480  
gaaatcatt acatttaaaa tataccttac agcaaaagca tccaaataag tatagggttt 540  
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a 601

<210> 121  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 121  
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agttccttta tatttaaat tcttgtttta tatattttga atgtctttat agatttcttt 180  
aaatttctct atagaacct taatagaaaa tcattacatt taaaatatac cttacagcaa 240  
aagcatccaa ataagtatag ggtttatgct cttatttttc tttcagctga atacgaatga 300  
rcacagtggg ggaatttctg aaggggaagt atgaaattat atttatttca gtgggcactt 360  
ttccatttta ccaactgtacc attatttggg tcttgagatt atacactaat tttcagtata 420  
ttactgttaa attaccaaca caaggcaatt ttttgaaag attccgttta tcttgccatt 480  
gctttgaaaa gcagcaggaa acgaaatcct ttgacttgta tcagcttctg cagagcatct 540  
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a 601

<210> 122  
<211> 601  
<212> DNA  
<213> Homo sapiens

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cagcaggaaa cgaaatcctt tgacttgat cagcttctgc agagcatctt tgttttcttt 180  
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ccattccttag taacctgaaa tttctttttt aattgcatga agtggattga tcatgagcaa 300  
rtgatgtgct tatttctccc tcaactgttg atatctttga acttgctggt ttcaatatgg 360  
gcagcacaac ggtgagagat acatattaat agtagtatgt attactctta tacattagat 420  
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caagtttttag gaacatgtta ggatatagga gacttaattt ataataatga gagcattttt 540  
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t 601

<210> 123  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 123  
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gagacttaat ttataataat gagagcattt ttttatttta cttaaagccat ttttatagtc 180  
aactatcttt tcttatttgt gtgattagaa cttagaaaaa tatttactag ttgaagttat 240  
tatcagtttt taatttagtt cttaaactca tttcacttct aataatttct gttataaatt 300

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kccagcattt taatgaaaat ctaatgatgt aataggcatt ttctttatct gaacctacct 360
ctttttatctt ctgaaccaaa gagaaagatg gactgggtgt tgtgaaacat ttttaaaaat 420
gtagtttcat ttatattagt tatgtttgat aaatgtctca gtatttttat aatatgataa 480
gcctgggatt ctacttttag gggtatttgt acttttgagt aatatataaa gtgacaatat 540
taagggtacat gatcagctct ttctattttt actcgtaaaa attatggaaa tgaataattt 600
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601

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<210> 124

<211> 601

<212> DNA

<213> Homo sapiens

<400> 124

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aaacattttt aaaaatgtag ttctatttat attagttatg ttgataaat gtctcagtat 180
ttttataata tgataagcct gggattctac ttttaggggt atttgactt ttgagtaata 240
tataaagtga caatattaag gtacatgac agctctttct atttttactc gtaaaaatta 300
yggaaatgaa taattttgct aacaactttg aaatttcaaa cttctggaaa atatgaaaat 360
attcattgtt cattatgaat tttaattgta aggtatgaat gtgatttgc tgtacatctt 420
gtatcttttc caaaaaatga ttctgtatct tttggaaaaa agccgagagt tgaagatagt 480
atattttctg tagtactgaa tatttactta cagtttctat caaaaatata tatttgtttc 540
taaaattact tgttttccag tttttatttt ttttagagaa aattcttaag tctcagtttc 600
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601

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<210> 125

<211> 601

<212> DNA

<213> Homo sapiens

<400> 125

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tgagatggct gtgacagaca ctggcagttc cctgcccaca cacctgtccc tgtccacagc 120
tgcacaaggc agctctgtgt gcaattgccg gcatctgctc ctctgttctc agggaaatctt 180
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kgttgcatct gtaaaaatgt ggcatggctt cctcatcccc caataggaac tttgccagcc 360
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gagggagcaa cctcctttg ccatatgtct tcattgggag acatgtggag cagtctgaag 480
tcatttaggc cactctctgg gagagcacat cctatgatgt tctcccagcc tagcccttc 540
cactgtgctc aagtccaagc tgaccagctt tctgaccaca gtgtaaaaaa agatgattgt 600
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601

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<210> 126

<211> 494

<212> DNA

<213> Homo sapiens

<400> 126

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agcagagatt gtactttaca gtattttgtc tttgagcttg gcattaggtt gcatttgtaa 180
aaatgtggca tggtctctc atcccccaat aggaactttg ccagcccttt tgttctcatg 240
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yctttgccat atgctctcat tgggagacat gtggagcagt ctgaagtcatt ttagggcact 360
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ccaagctgac cagctttctg accacagtgt aaacaaagat gattgtcagt gggccccaga 480
atcctatacc caga
494

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